

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: William E. RUSSELL II, et al.
Application No.: NEW DIVISIONAL APPLICATION
Filed: June 30, 2003
For: SYSTEM AND METHOD FOR CONTINUOUS OPERATION OF
CONTROL-VARIABLES DURING OPERATION OF A NUCLEAR
REACTOR

INFORMATION DISCLOSURE STATEMENT
(SUBMISSION CONCURRENT WITH THE
FILING OF A NEW PATENT APPLICATION)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

June 30, 2003

Sir:

Pursuant to 37 C.F.R. §§ 1.97 and 1.98, applicant(s) hereby submit(s) an Information Disclosure Statement for consideration by the Examiner.

I. LIST OF PATENTS, PUBLICATIONS OR OTHER INFORMATION

The patents, publications, or other information submitted for consideration by the Office are listed on PTO-1449, attached hereto.

II. COPIES

- ☐ Submitted herewith is a legible copy of (i) each U.S. and foreign patent; (ii) each publication or that portion which caused it to be listed; and (iii) all other information or that portion which caused it to be listed.
- ☒ This application is a continuation of U.S. Patent Application No. 09/683,004. All of the documents listed on the copies of the PTO-1449s and PTO-892 are not enclosed because they were cited in U.S. Patent Application 09/683,004. If copies are needed, please contact the undersigned.

III. CONCISE EXPLANATION OF THE RELEVANCE

(check at least one box)

a. ☐ **DOCUMENTS IN THE ENGLISH LANGUAGE**

The attached patents, publications, or other information in the English language do not require a statement of relevancy.

b. ☐ **DOCUMENTS NOT IN THE ENGLISH LANGUAGE**

A concise explanation of the relevance of all patents, publications, or other information listed that is not in the English language is as follows:

c. ☐ **OTHER**

FEES

This Information Disclosure Statement is being filed concurrently with the filing of a new patent application; therefore, no fee is required.

If The Examiner has any questions concerning this IDS, he/she is requested to contact the undersigned. If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule and charge the appropriate fee to Deposit Account No. 08-0750.

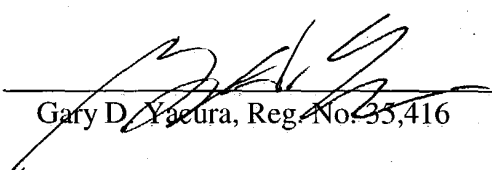
New U.S. Application
Docket No. 8564-000045/US/DVA

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under § 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKEY & PIERCE, P.L.C

By:


Gary D. Yacura, Reg. No. 35,416

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Reston, Virginia 20195
(703) 668-8000

GDY:jcp

Enclosures: ☒ Form PTO-1449(s)
☐ Documents
☐ Fee

FORM HDP-1449 (Based on Form PTO-1449)

PATENT AND TRADEMARK OFFICE
INFORMATION DISCLOSURE CITATION
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Sheet 1 of 3

ATTORNEY DOCKET NO.

8564-000045/US/DVA

SERIAL NO.

DIVISIONAL OF
09/683,004

APPLICANT

William E. RUSSELL II, et al.

FILING DATE

June 30, 2003

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U.S. PATENT DOCUMENTS

Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date

FOREIGN PATENT DOCUMENTS

Ref. Desig.	Examiner's Initials	Document Number	Date	Country	Class/ Subclass	Translation Yes	No

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

Ref. Desig.	Examiner's Initials	
		Hamida, S. Ben et al. "The need for improving the exploration operators for constrained optimization problems." Proc. Of the 2000 Congress on Evolutionary Computation, San Diego, USA, 1989.
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		Schoenauer, Marc et al. "Evolutionary Computation at the Edge of Feasibility." Proc. 4 th Conf. Parallel Problems Solving from Nature, W. Ebeling and H.-M. Voigt (eds.), Springer-Verlag, pp. 573-580, 1996.
		Bäck, Thomas et al. "A Survey of Evolution Strategies." Proc. 4 th Intl. Conf. Genetic Algorithms, R.K. Belew and L.B. Booker (eds.), Morgan Kaufman, pp. 2-9, 1991.
		Joines, Jeffrey A. et al. "On the Use of Non-Stationary Penalty Functions to Solve Nonlinear Constrained Optimization Problems with GA's." Proc. 1 st IEEE Intl. Conf. Evolutionary Computation, D.B. Fogel (ed.) IEEE Press, pp. 579-584, 1994.
		Eiben, A. E. et al. "SAW-ing EAs: adapting the fitness function for solving constrained problems." <u>New Ideas in Optimization</u> , McGraw-Hill, London, D. Corne, M. Dorigo, F. Glover (eds.), pp. 389-402, 1999.
		Coit, David W. et al. "Adaptive Penalty Methods for Genetic Optimization of Constrained Combinatorial Problems." INFORMS Journal on Computing, 8(2): 173-182, 1996.
		Moore, Brian R. et al. "FORMOSA-B: A BOILING WATER REACTOR IN-CORE FUEL MANAGEMENT OPTIMIZATION PACKAGE." Nuclear Technology, Vol. 126, pp. 153-169, May 1999.
		Karve, A.A. et al. "FORMOSA-B: A Boiling Water Reactor In-Core Fuel Management Optimization Package II," <i>Nucl. Technol.</i> , 131 , 48-68 (2000).
		Hadj-Alouane, A.B. et al. "A Genetic Algorithm for the Multiple-Choice Integer Program." Operations Research, 45 (1), pp. 92-101, 1997
		Homaifar, A. et al. "Constrained Optimization via Genetic Algorithms" Simulation 62 (4), pp. 242-254, 1994.

Examiner:

Date Considered:

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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**PATENT AND TRADEMARK OFFICE
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Sheet 2 of 3

ATTORNEY DOCKET NO.

8564-000045/US/DVA

SERIAL NO.

**DIVISIONAL OF
09/683,004**

APPLICANT

William E. RUSSELL II et al.

FILING DATE

June 30, 2003

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5. PATENT DOCUMENTS

ef. sig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
		5636328	06/03/1997	Kautz et al.		
		6031984	02/29/2000	Walser		
		5267346	11/30/1993	Maruyama et al.		
		5530867	06/25/1996	Beran		
		5855009	12/29/1998	Garcia et al.		
		5940816	08/17/1999	Fuhrer et al.		
		6272483	08/07/2001	Joslin et al.		

6. FOREIGN PATENT DOCUMENTS

ef. sig.	Examiner's Initials	Document Number	Date	Country	Class/ Subclass	Translation Yes	No

7. OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

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S. PATENT DOCUMENTS

ef. sig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
		6345240	02/2002	HAVENS		
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FOREIGN PATENT DOCUMENTS

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		CRC Handbook of Mathematical Sciences, 5 th Edition, William H. Beyer, CRC Press, 1985.
		Karve et al. "Effectiveness of BWR Control Rod Pattern Sampling Capability in the Incore Fuel Management Code FORMOSA-B", <i>M&C</i> '99, September 1999, Madrid Spain, pages 1459-1468.

Examiner:

Date Considered:

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DIVISIONAL OF

Notice of References Cited

Application/Control No.
09/683,004

Applicant(s)/Patent Under
Reexamination
RUSSELL ET AL.

Examiner
Rick Palabrica

Art Unit
3641

Page 1 of 1

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*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
A	US-5,912,933	06-1999	Shaug et al.	376/216
B	US-5,781,430	07-1998	Tsai, Roger Yen-Luen	700/28
C	US-			
D	US-			
E	US-			
F	US-			
G	US-			
H	US-			
I	US-			
J	US-			
K	US-			
L	US-			
M	US-			

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N					
O					
P					
Q					
R					
S					
T					

NON-PATENT DOCUMENTS

*	Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
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copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
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INFORMATION DISCLOSURE
CITATION

ATTY. DOCKET NO.

SERIAL NO.

8564-000045/US/DVA

09/683.004

APPLICANT

RUSSELL, II

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INITIAL						IF APPROPRIATE
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OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)

	PATENT ABSTRACTS OF JAPAN, 04132995, publication date 5/7/1992; Shiratori Yoshitake, "Expert System Supporting Preparation of Planning for Fuel Replacement"		
*Examiner		Date Considered	

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Form PTO-FB-A820 (Also PTO-1449)

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